

**REMARKS**

The Final Office Action rejected claims 1, 8, 17, 24, 31, and 32 under 35 U.S.C. § 103(a) as being unpatentable over *Ueda et al.* (U.S. Patent No. 6,289,102) in view of *Pebley et al.* (U.S. Patent No. 6,154,840) and *Graunke et al.* (U.S. Patent No. 5,991,399), and rejected claims 5, 6, 12, 13, 21, 22, 28, and 29 under 35 U.S.C. § 103(a) as being unpatentable over *Ueda et al.* in view of *Pebley et al.*, *Graunke et al.*, and *Dilkie et al.* (U.S. Patent No. 6,341,164).

By this Amendment, Applicant amends claims 1, 8, 17, 24, 31, and 32. Claims 1, 5, 6, 8, 12, 13, 17, 21, 22, 24, 28, 29, 31, and 32 remain pending in the application.

Applicants respectfully traverse the rejections of the claims under 35 U.S.C. § 103(a). A *prima facie* case of obviousness has not been established because the scope and content of the prior art, and the differences between the cited art and the claims, have not been properly ascertained. Thus, the Final Office Action does not provide a legitimate basis for alleging obviousness of the claimed combinations in view of the differences between the claimed invention and the cited art.

As discussed in the specification, a disadvantage of prior art systems that store encryption keys within each sector of a storage memory device along with the data is that the size of the stored encryption key reduces the storage area within the sector in which the data can be stored. *Specification*, p. 5. The claimed invention overcomes this disadvantage.

For example, amended claim 1 is directed to an information recording device that stores content data in a "data storage area comprising a plurality of blocks, each of the blocks comprising M sectors from a first sector to a M-th sector with each sector having

a predetermined data capacity, where M represents a natural number.” The information recording device includes a processing unit that divides the “content data into separate content data portions, for storing each of the separate content data portions in a different sector within a first data block of the data storage area, and for storing a security header corresponding to the content data in a second data block of the data storage area, wherein the first data block is different from the second data block.” The information recording device further includes a “cryptosystem unit for performing sector level encryption by using a different encryption key for each sector of the first data block.” As additionally recited in amended claim 1, the “security header stored in the second data block includes each encryption key used for each sector of the first data block.”

Accordingly, as set forth in amended claim 1, the security header, which includes the encryption key used to encrypt each sector of the first data block, is stored in a different data block than the content data. Specifically, as set forth in claim 1, the content data is stored in a first data block, and the security header is stored in a second data block. One nonlimiting advantage of the claimed invention of claim 1 is that the security header, which includes the encryption key, is not stored in the same sector as the data that is encrypted using the encryption key. Therefore, the claimed invention of claim 1 does not reduce the area of a sector in which data can be stored.

In rejecting claim 1, the Final Office Action asserts that *Ueda et al.* discloses “a processing unit for dividing content data into separate content data portions, for storing each of the separate content data portions in a different sector within a first data block of the data storage area (col. 14, lines 19-25); and for a security header corresponding to

the content data in a second data [b]lock of the data storage area (col. 15, lines 31-40);  
... and wherein the security header stored in the second data block includes each  
encryption key used." *Final Office Action*, p. 3. The Advisory Action mailed December  
2, 2009, repeats this assertion. This is incorrect.

For example, column 14, lines 19-25 of *Ueda et al.* recites:

Portion (e) of FIG. 10 shows a data structure of the  
scrambled file A. The file A is partitioned into a plurality of  
continuous sectors starting from a sector n. Data stored in  
each of the plurality of sectors is subjected to  
scramble-processing. Hereinafter, in this specification, the  
sector storing data having been subjected to the  
scramble-processing is referred to as "a scrambled sector".

Column 15, lines 31-40 of *Ueda et al.* recites:

Portion (e) of FIG. 11 shows a data structure of a  
scrambled sector in the data recording area. The sector  
header field in the scrambled sector includes an address  
field, a scramble flag field where a flag for identifying  
whether or not the scramble-processing has been performed  
to the main data field in the sector, a seed key field where  
the key used at the time of scrambling (hereinafter, referred  
to as a seed key) is recorded, and a use identifying  
information field where information for identifying use of the  
file is recorded.

At best, the above passages of *Ueda et al.* disclose a plurality of sectors each storing  
scrambled data. However, nowhere in the above passages of *Ueda et al.*, or in the  
remaining disclosure of *Ueda et al.*, is there a teaching or suggestion of "a processing  
unit for dividing content data into separate content data portions, for storing each of the  
separate content data portions in a different sector with a first data block of the data  
storage area, and for storing a security header corresponding to the content data in a  
second data block of the data storage area, wherein the first data block is different from  
the second data block," as recited in amended claim 1. The deficiencies of *Ueda et al.*

with respect to the present claims is further evidenced by FIG. 1 of *Ueda et al.*, which is reproduced below.

*FIG. 1*

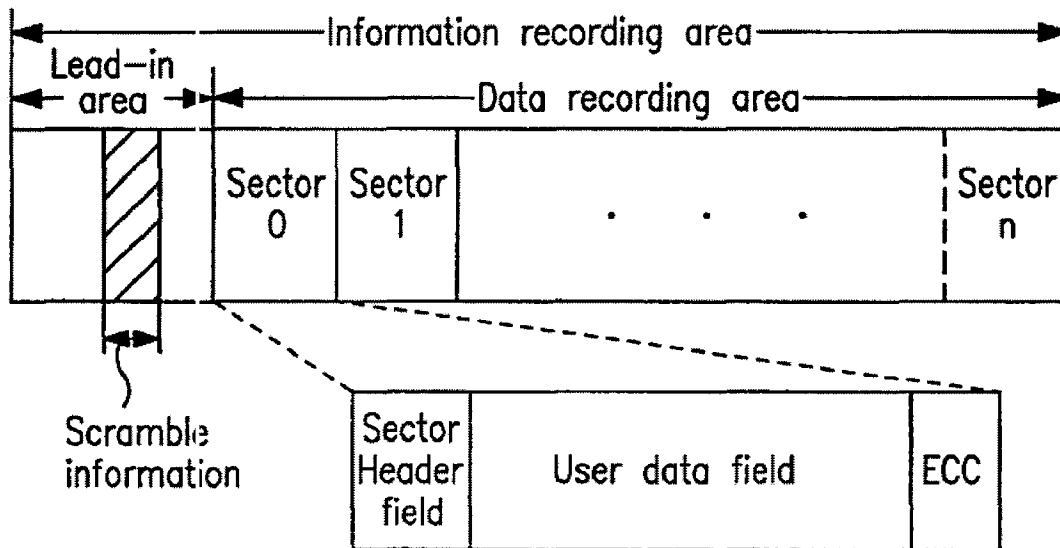


FIG. 1 of *Ueda et al.*, illustrates the information recording area of a recording medium (i.e., an optical disk). *Ueda et al.* 7:25-30. As illustrated in FIG. 1, the information recording area includes a lead-in area and a data recording area. As further illustrated in FIG. 1, the lead-in area includes scramble information, while the data recording area includes multiple sectors. The "scramble information is an identifier for designating a table for providing an initial value for a random number sequence to be used in scramble-processing." *Id.* at 8:39-42. "Each sector includes a sector header field where a sector ID (Identifier) for identifying the sector or the like is recorded, a user data field where user data is recorded, and an ECC (Error Correction Code) field where a code for correcting readout errors at the time of reproduction is recorded." *Id.* at 7:40-45 (emphases added).

Neither the “scramble information” nor the “sector header” of *Ueda et al.* equate to the claimed “security header” recited in claim 1. For example, the scramble information disclosed by *Ueda et al.* only includes a single “initial value” and, therefore, it does not equate to the claimed “security header stored in [a] second data block [which] includes each encryption key used for each sector of [a] first data block,” as recited in claim 1. (Emphasis added.) Additionally, because the “sector header” field of *Ueda et al.* is stored in the same sector as the data, *Ueda et al.* does not teach or suggest “a processing unit for dividing content data into separate content data portions, for storing each of the separate content data portions in a different sector with a first data block of the data storage area, and for storing a security header corresponding to the content data in a second data block of the data storage area, wherein the first data block is different from the second data block,” as recited in claim 1. (Emphases added.)

In another embodiment, *Ueda et al.* discloses that the “sector header” includes a “seed key field where the key used at the time of scrambling (hereinafter, referred to as a seed key) is recorded.” *Ueda et al.* 15:36-38. However, even in this embodiment of *Ueda et al.*, the “sector header,” and hence the “seed key,” is stored in the same sector as the data. *Id.* at FIGs. 11 and 12. Accordingly, nowhere does *Ueda et al.* teach or suggest “a processing unit for dividing content data into separate content data portions, for storing each of the separate content data portions in a different sector with a first data block of the data storage area, and for storing a security header corresponding to the content data in a second data block of the data storage area, wherein the first data block is different from the second data block,” as recited in claim 1. (Emphases added.)

None of *Pebley et al.*, *Graunke et al.*, and *Dilkie et al.* teach or suggest “a processing unit for dividing content data into separate content data portions, for storing each of the separate content data portions in a different sector with a first data block of the data storage area, and for storing a security header corresponding to the content data in a second data block of the data storage area, wherein the first data block is different from the second data block” and “wherein the security header stored in the second data block includes each encryption key used for each sector of the first data block,” as recited in claim 1. Nor does the Final Office Action attempt to rely on these references for such a teaching or suggestion. Accordingly, the Final Office Action fails to establish a *prima facie* case of obviousness for claim 1. Applicants thereby respectfully request that the rejection of claim 1 be withdrawn and the claim allowed.

Independent claims 8, 17, 24, 31, and 32, while of different scope than claim 1, distinguish over *Ueda et al.*, *Pebley et al.*, *Graunke et al.*, and *Dilkie et al.* for similar reasons as claim 1. Accordingly, Applicants also respectfully request the withdrawal of the rejection of claims 8, 17, 24, 31, and 32 under 35 U.S.C. § 103(a) and the timely allowance of the claims.

Dependant claims 5, 6, 12, 13, 21, 22, 28, and 29 depend from one of claims 1, 8, 17, and 24, and are allowable for at least the same reasons as the claim from which they depend, as well as by virtue of reciting additional features not taught nor suggested by the cited references. Accordingly, Applicants also respectfully request withdrawal of the rejection of dependent claims 5, 6, 12, 13, 21, 22, 28, and 29 under 35 U.S.C. § 103(a) and the timely allowance of the claims.

**Conclusion**

In view of the foregoing remarks, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

The preceding remarks are based on the arguments presented in the Final Office Action, and therefore do not address patentable aspects of the invention that were not addressed by the Examiner in the Final Office Action. The pending claims may include other elements that are not shown, taught, or suggested by the cited art. Accordingly, the preceding remarks in favor of patentability are advanced without prejudice to other bases of patentability. Furthermore, the Final Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Final Office Action.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

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